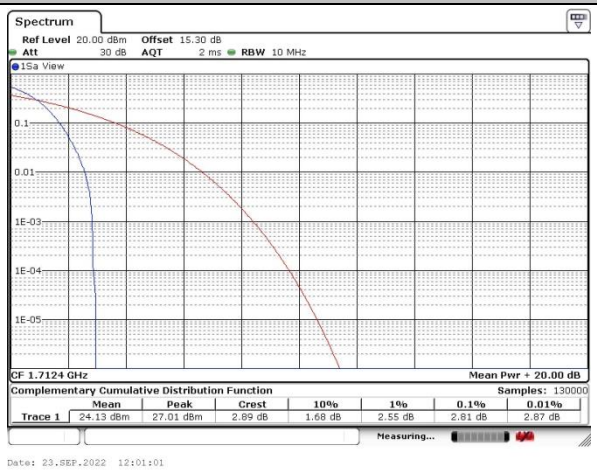
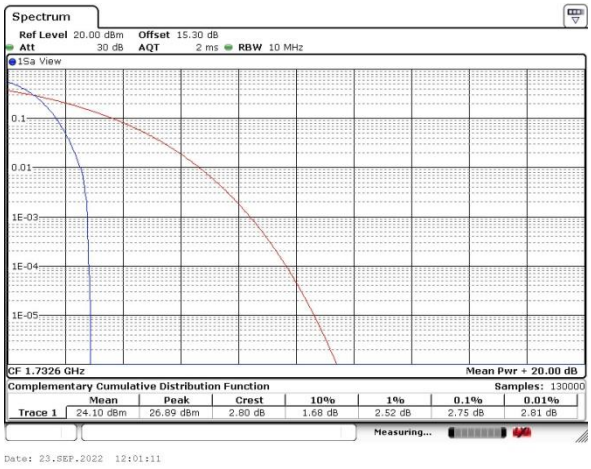
WCDMA Band IV (RMC 12.2Kbps)

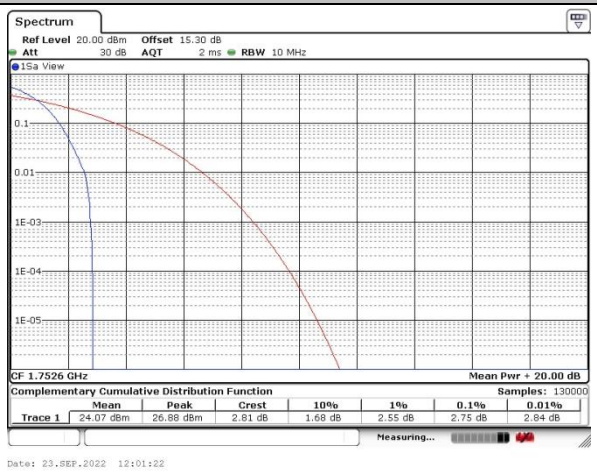
Lowest Channel



Middle Channel



Highest Channel

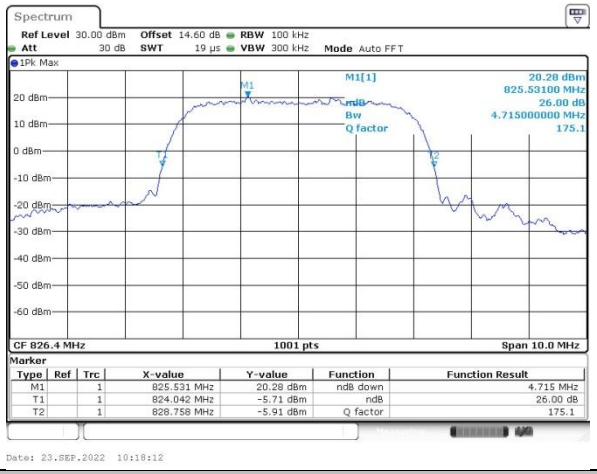


26dB Bandwidth

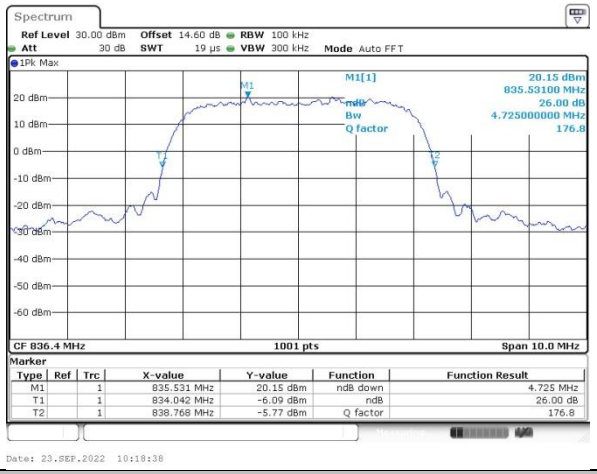
Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.715	4.725	4.735
Middle CH	4.725	4.725	4.735
Highest CH	4.725	4.725	4.725

WCDMA Band V (RMC 12.2Kbps)

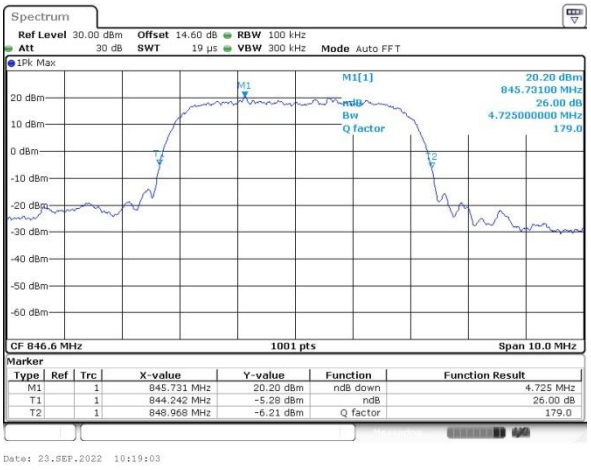
Lowest Channel



Middle Channel

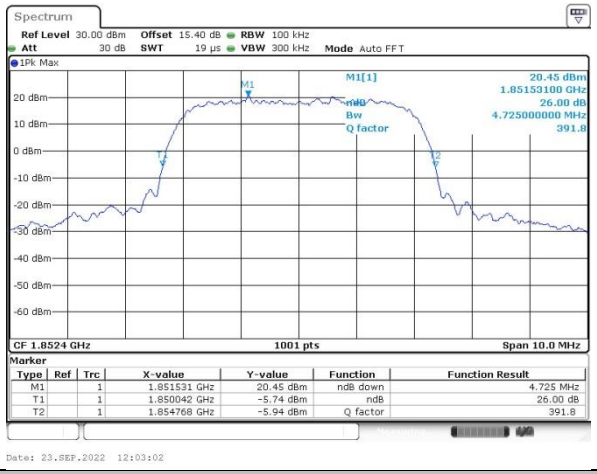


Highest Channel

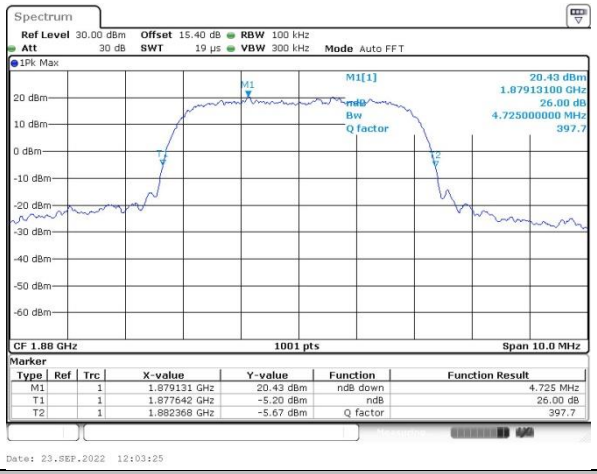


WCDMA Band II (RMC 12.2Kbps)

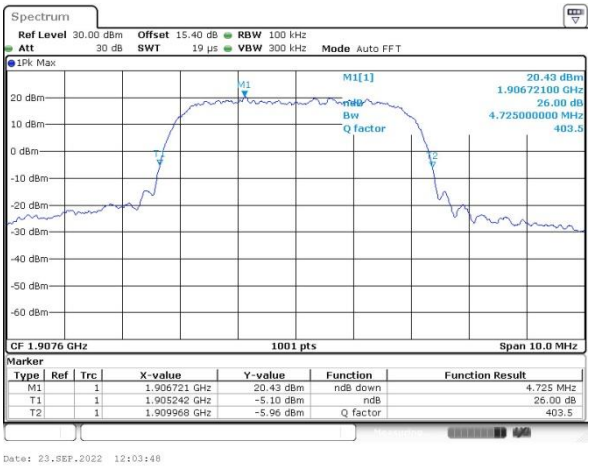
Lowest Channel



Middle Channel

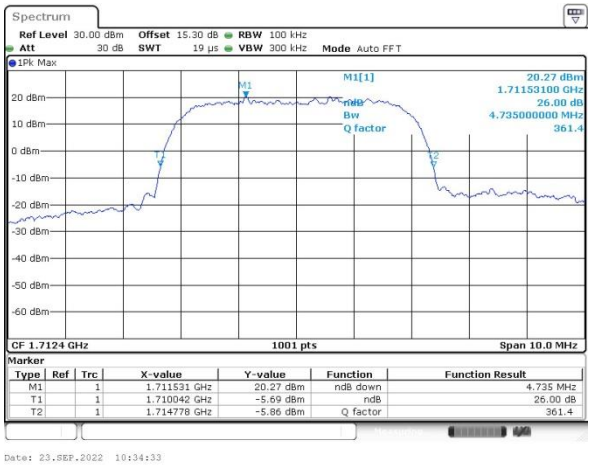


Highest Channel

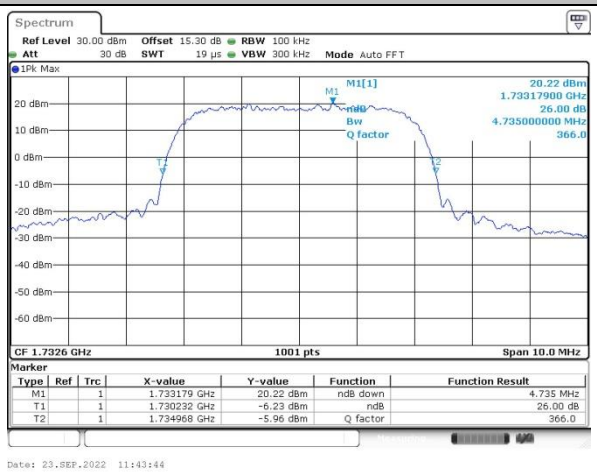


WCDMA Band IV (RMC 12.2Kbps)

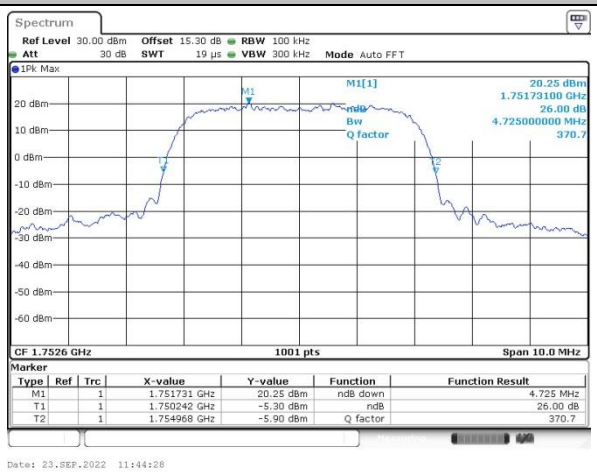
Lowest Channel



Middle Channel



Highest Channel

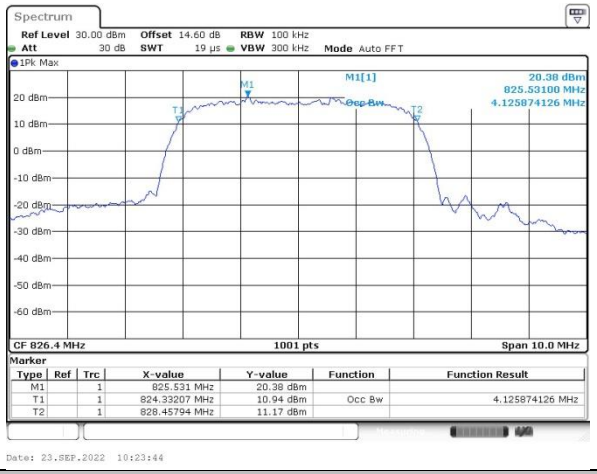


Occupied Bandwidth

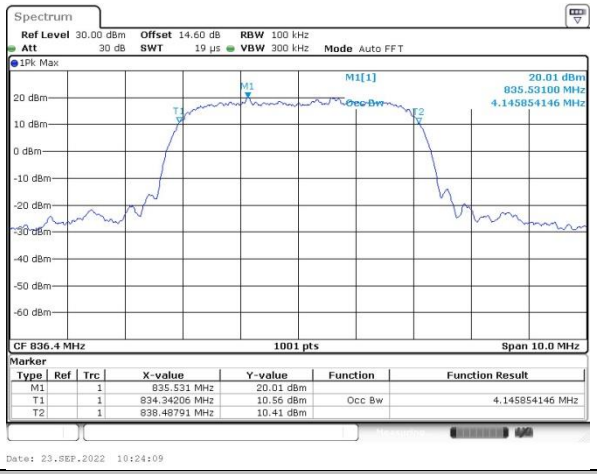
Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.126	4.146	4.156
Middle CH	4.146	4.146	4.146
Highest CH	4.146	4.146	4.146

WCDMA Band V (RMC 12.2Kbps)

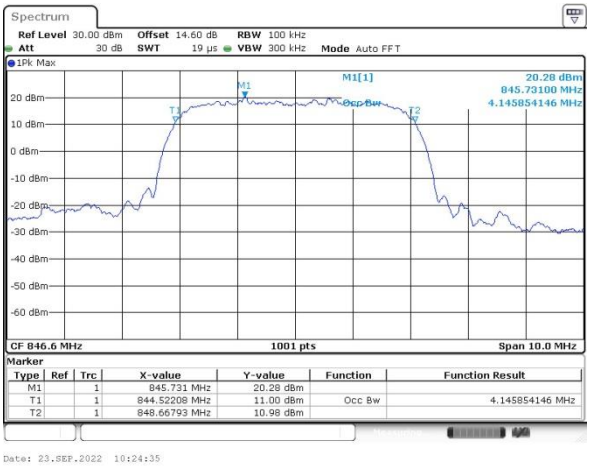
Lowest Channel



Middle Channel

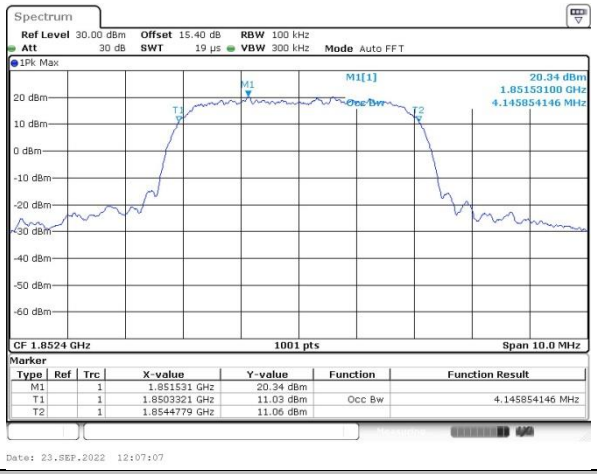


Highest Channel

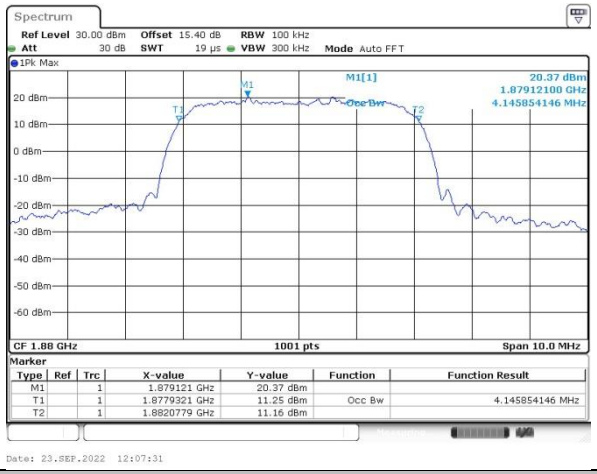


WCDMA Band II (RMC 12.2Kbps)

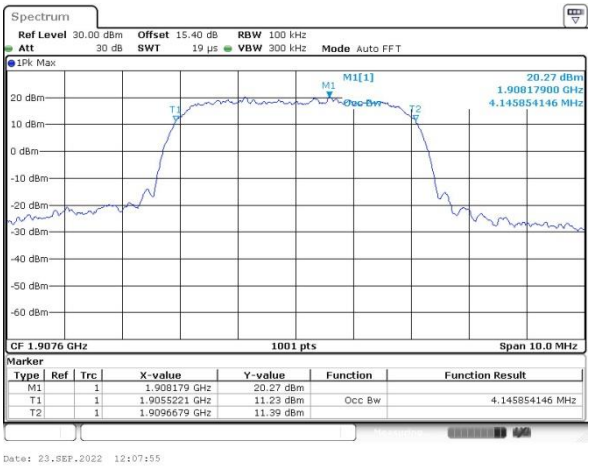
Lowest Channel



Middle Channel

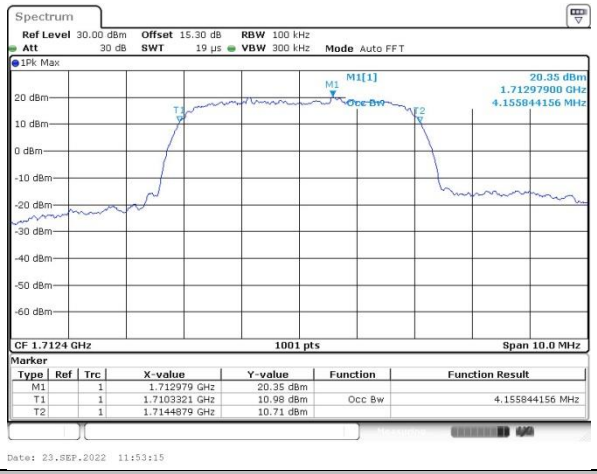


Highest Channel

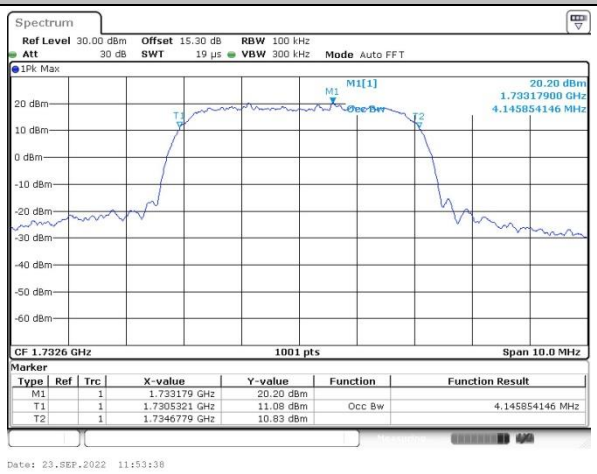


WCDMA Band IV (RMC 12.2Kbps)

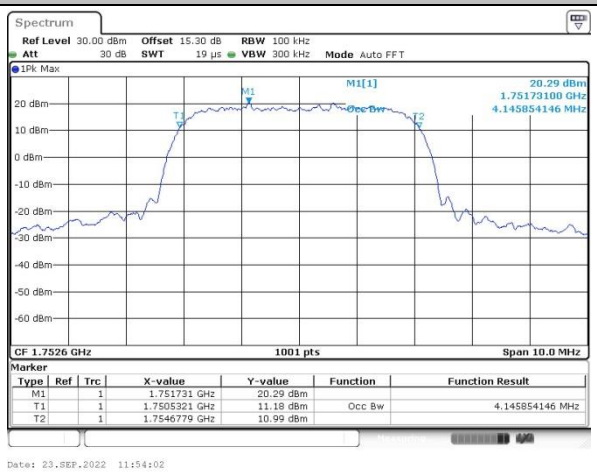
Lowest Channel



Middle Channel

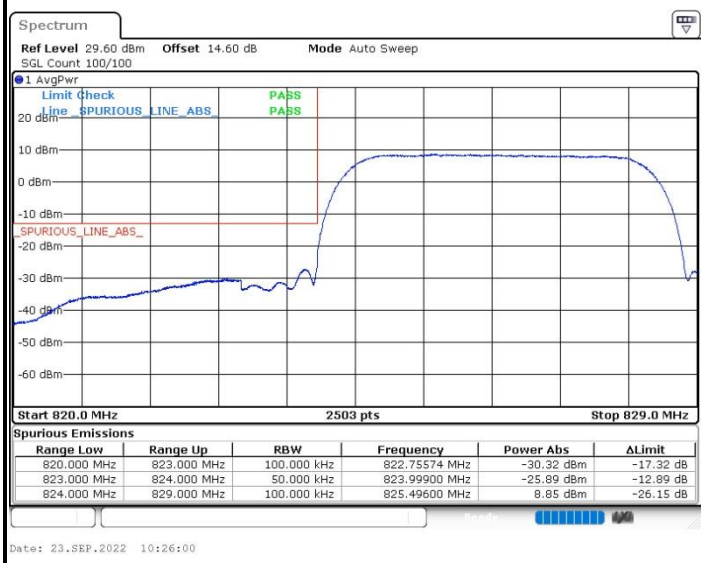


Highest Channel



Conducted Band Edge

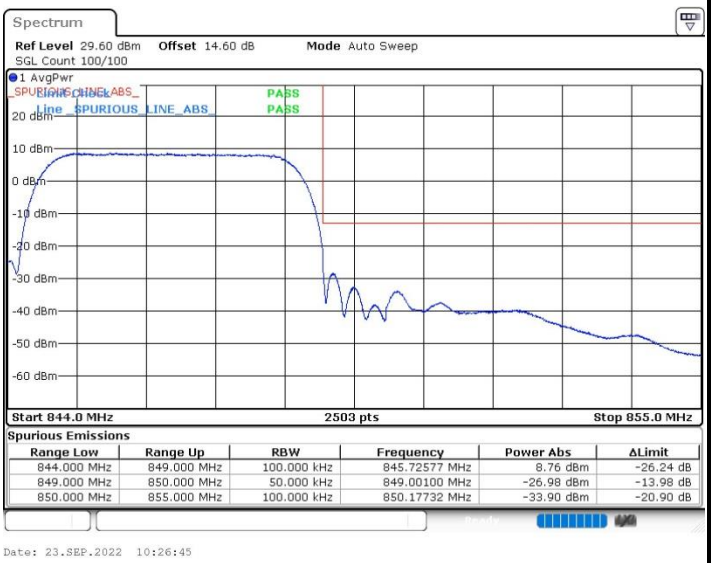
WCDMA Band V (RMC 12.2Kbps)	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.75574 MHz	-30.32 dBm	-17.32 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99900 MHz	-25.89 dBm	-12.89 dB
824.000 MHz	829.000 MHz	100.000 kHz	825.49600 MHz	8.85 dBm	-26.15 dB

Date: 23.SEP.2022 10:26:00



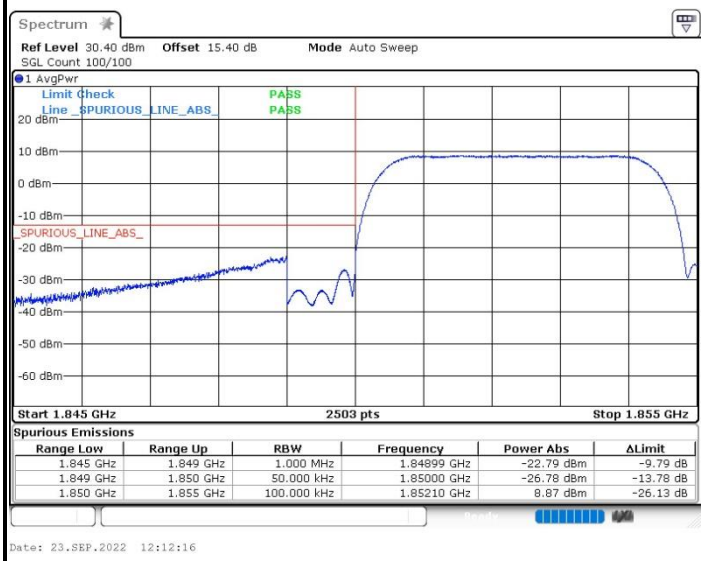
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.72577 MHz	8.76 dBm	-26.24 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00100 MHz	-26.98 dBm	-13.98 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.17732 MHz	-33.90 dBm	-20.90 dB

Date: 23.SEP.2022 10:26:45

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

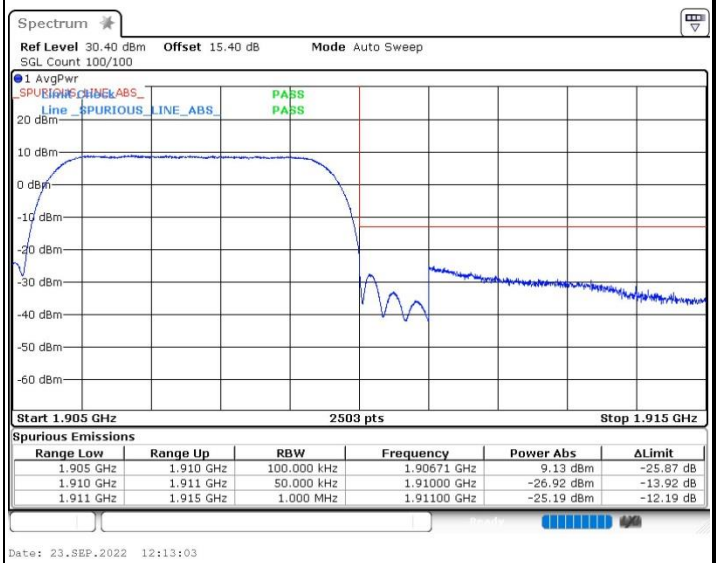


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84899 GHz	-22.79 dBm	-9.79 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-26.78 dBm	-13.78 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85210 GHz	8.87 dBm	-26.13 dB

Date: 23.SEP.2022 12:12:16

Highest Band Edge



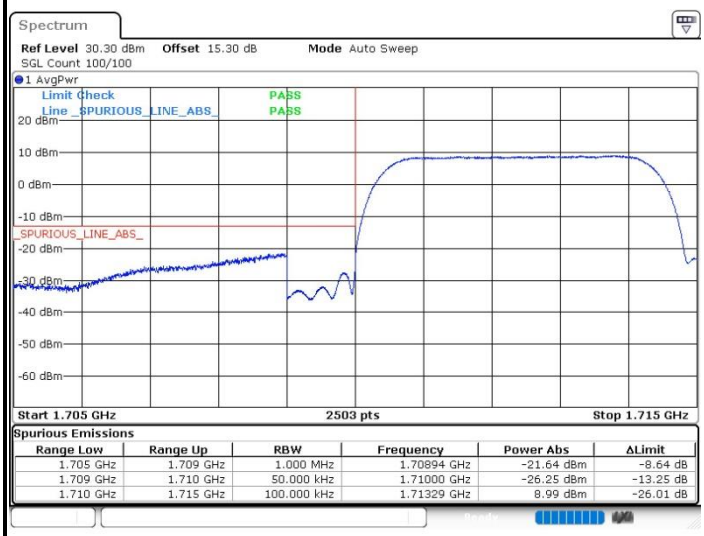
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90671 GHz	9.13 dBm	-25.87 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91000 GHz	-26.92 dBm	-13.92 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91100 GHz	-25.19 dBm	-12.19 dB

Date: 23.SEP.2022 12:13:03

WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

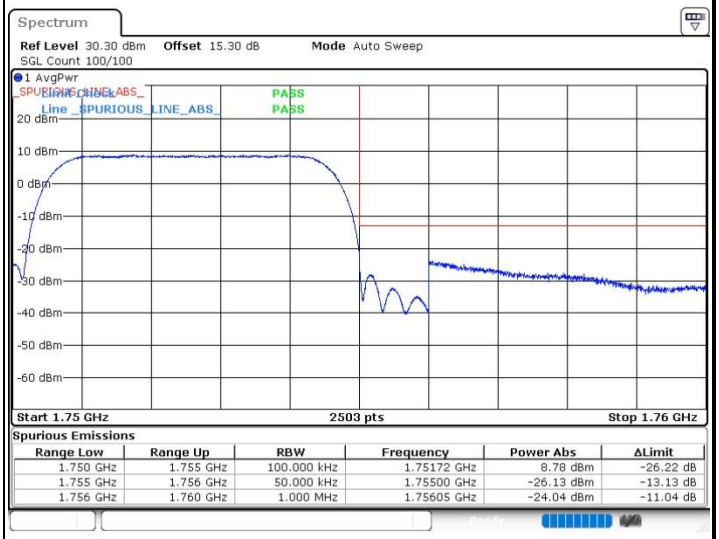


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.705 GHz	1.709 GHz	1.000 MHz	1.70894 GHz	-21.64 dBm	-8.64 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.71000 GHz	-26.25 dBm	-13.25 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71329 GHz	8.99 dBm	-26.01 dB

Date: 23.SEP.2022 11:56:23

Highest Band Edge



Spurious Emissions

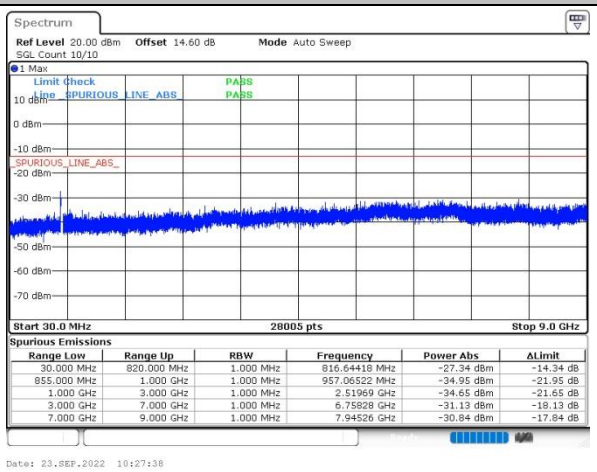
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75172 GHz	8.78 dBm	-26.22 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75500 GHz	-26.13 dBm	-13.13 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75605 GHz	-24.04 dBm	-11.04 dB

Date: 23.SEP.2022 11:57:07

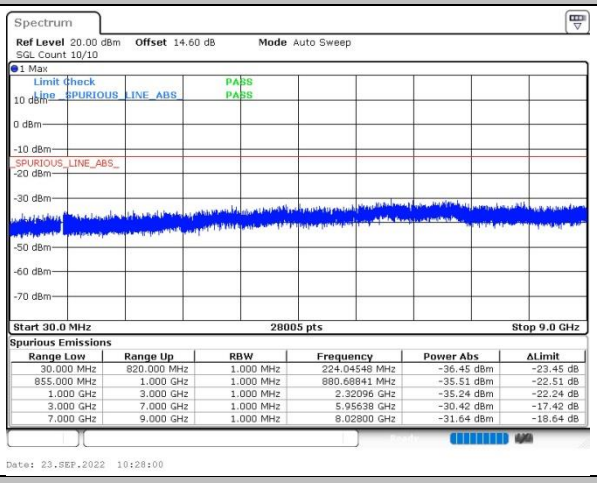
Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

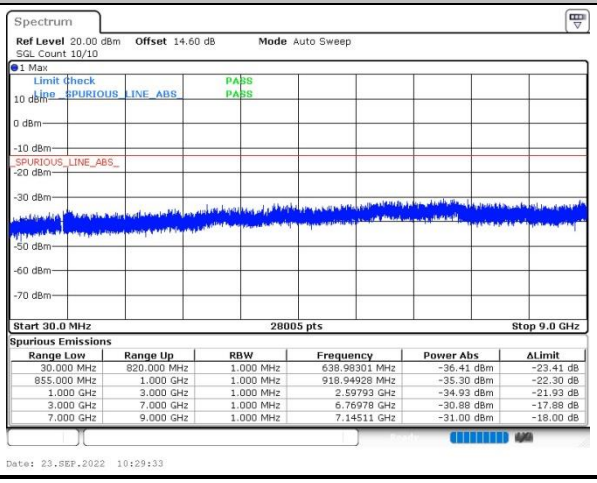
Lowest Channel



Middle Channel

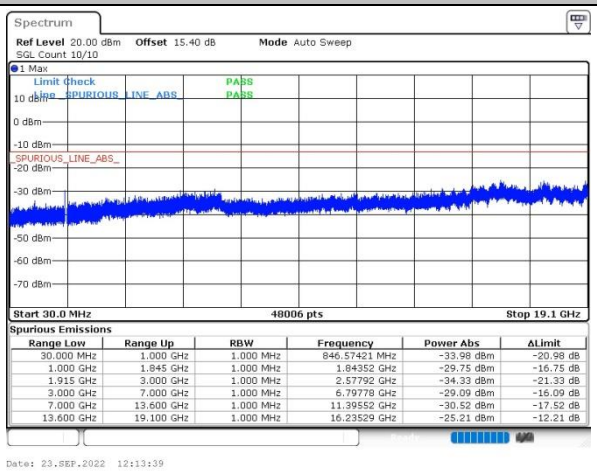


Highest Channel

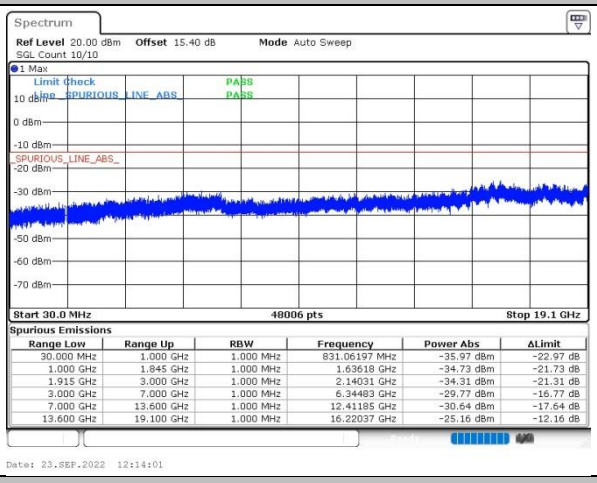


WCDMA Band II (RMC 12.2Kbps)

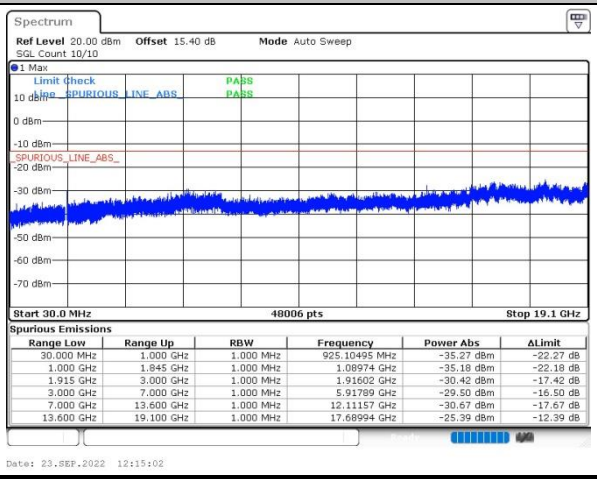
Lowest Channel



Middle Channel

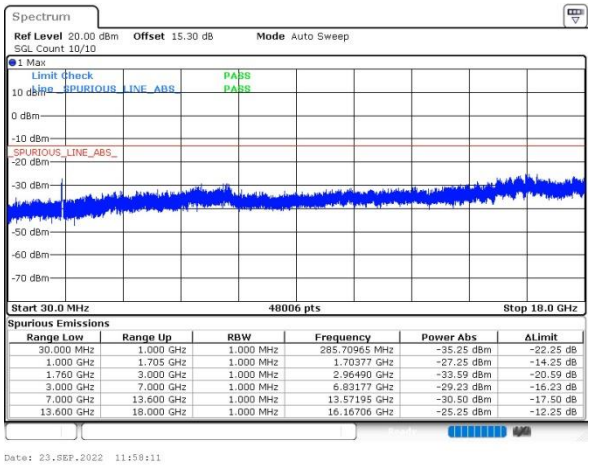


Highest Channel



WCDMA Band IV (RMC 12.2Kbps)

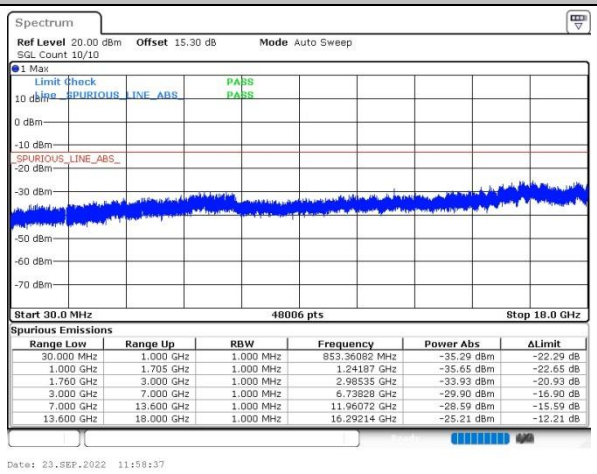
Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	285.70965 MHz	-35.25 dBm	-22.25 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70377 GHz	-27.25 dBm	-14.25 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.96490 GHz	-33.59 dBm	-20.59 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.83177 GHz	-29.23 dBm	-16.23 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.57195 GHz	-30.50 dBm	-17.50 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.16706 GHz	-25.25 dBm	-12.25 dB

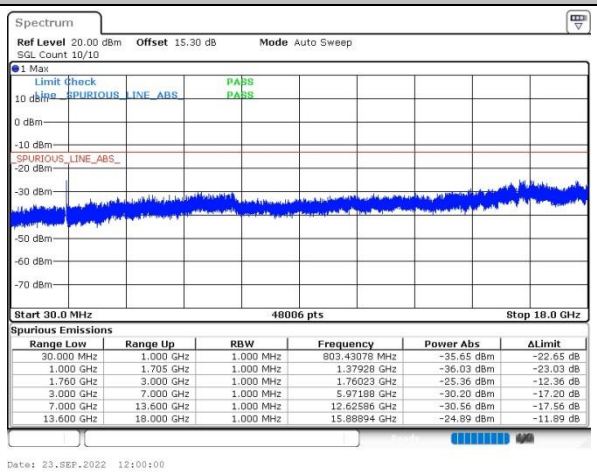
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	853.36082 MHz	-35.29 dBm	-22.29 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.24187 GHz	-35.65 dBm	-22.65 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.98535 GHz	-33.93 dBm	-20.93 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.73828 GHz	-29.90 dBm	-16.90 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.96072 GHz	-28.59 dBm	-15.59 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.29214 GHz	-25.21 dBm	-12.21 dB

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	803.43078 MHz	-35.65 dBm	-22.65 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.37928 GHz	-36.03 dBm	-23.03 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76023 GHz	-25.36 dBm	-12.36 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.97188 GHz	-30.20 dBm	-17.20 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.62586 GHz	-30.56 dBm	-17.56 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.88894 GHz	-24.89 dBm	-11.89 dB

Frequency Stability

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0022	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0018	
20	Battery End Point	0.0009	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0019	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0023	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0028	
20	Battery End Point	0.0013	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0018	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0023	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0027	
20	Battery End Point	0.0018	

Note:

1. Normal Voltage = 3.88V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.27V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Note: Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test.

GSM850 (GSM)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-57.02	-13	-44.02	-68.73	-60.27	4.00	9.40	H
	2509.2	-38.34	-13	-25.34	-57.24	-41.91	4.88	10.60	H
	3345.6	-56.86	-13	-43.86	-77.93	-61.79	5.52	12.60	H
	1672.8	-53.69	-13	-40.69	-66.11	-56.94	4.00	9.40	V
	2509.2	-34.56	-13	-21.56	-53.67	-38.13	4.88	10.60	V
	3345.6	-56.64	-13	-43.64	-78.01	-61.57	5.52	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM850 (EDGE 1 Tx slots)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-57.88	-13	-44.88	-69.59	-61.13	4.00	9.40	H
	2509.2	-43.69	-13	-30.69	-62.59	-47.26	4.88	10.60	H
	3345.6	-57.01	-13	-44.01	-78.08	-61.94	5.52	12.60	H
	1672.8	-55.24	-13	-42.24	-67.66	-58.49	4.00	9.40	V
	2509.2	-38.18	-13	-25.18	-57.29	-41.75	4.88	10.60	V
	3345.6	-56.60	-13	-43.60	-77.97	-61.53	5.52	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (GSM)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-57.65	-13	-44.65	-79.99	-64.40	5.85	12.60	H
	5640	-57.18	-13	-44.18	-81.30	-62.98	7.30	13.10	H
	7520	-55.45	-13	-42.45	-81.73	-58.60	8.35	11.50	H
	3760	-55.12	-13	-42.12	-80.62	-61.87	5.85	12.60	V
	5640	-56.89	-13	-43.89	-81.16	-62.69	7.30	13.10	V
	7520	-55.49	-13	-42.49	-81.75	-58.64	8.35	11.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (EDGE 1 Tx slots)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-63.30	-13	-50.30	-76.50	-66.55	4.00	9.40	H
	2509.2	-54.45	-13	-41.45	-78.49	-58.02	4.88	10.60	H
	3345.6	-56.92	-13	-43.92	-79.66	-61.85	5.52	12.60	H
	1672.8	-62.45	-13	-49.45	-76.44	-65.70	4.00	9.40	V
	2509.2	-53.53	-13	-40.53	-77.80	-57.10	4.88	10.60	V
	3345.6	-56.55	-13	-43.55	-79.50	-61.48	5.52	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band V(RMC 12.2Kbps)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-63.30	-13	-50.30	-76.50	-75.01	4.00	9.40	H
	2509.2	-54.45	-13	-41.45	-78.49	-73.35	4.88	10.60	H
	3345.6	-56.92	-13	-43.92	-79.66	-77.99	5.52	12.60	H
	1672.8	-62.45	-13	-49.45	-76.44	-74.87	4.00	9.40	V
	2509.2	-53.53	-13	-40.53	-77.80	-72.64	4.88	10.60	V
	3345.6	-56.55	-13	-43.55	-79.50	-77.92	5.52	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band II(RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-57.54	-13	-44.54	-79.88	-64.29	5.85	12.60	H
	5640	-57.22	-13	-44.22	-81.34	-63.02	7.30	13.10	H
	7520	-55.62	-13	-42.62	-81.90	-58.77	8.35	11.50	H
	3760	-55.09	-13	-42.09	-80.59	-61.84	5.85	12.60	V
	5640	-57.05	-13	-44.05	-81.32	-62.85	7.30	13.10	V
	7520	-55.67	-13	-42.67	-81.93	-58.82	8.35	11.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band IV(RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3465.2	-58.58	-13	-45.58	-80.53	-65.43	5.65	12.50	H
	5197.8	-56.97	-13	-43.97	-81.13	-62.64	7.13	12.80	H
	6930.4	-55.43	-13	-42.43	-81.13	-58.83	8.40	11.80	H
	3465.2	-58.42	-13	-45.42	-80.17	-65.27	5.65	12.50	V
	5197.8	-56.28	-13	-43.28	-80.71	-61.95	7.13	12.80	V
	6930.4	-52.66	-13	-39.66	-79.28	-56.06	8.40	11.80	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.